

Notice of Allowability

Application No.

10/731,215

Examiner

Omar F. Fernández Rivas

Applicant(s)

HARVEY ET AL.

Art Unit

2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed on 10/4/2006.
2. ☒ The allowed claim(s) is/are 1-9, 11-17, 19-26, 28-35, 37-40 and 42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Scott Woloson on Thursday, November 16, 2006.

Claim 1, line 8, after the word "joint;" -and--has been deleted.

Claim 1, line 10, after the word "joint" --; and providing the comparison and/or the cross-sectional area of the weld joint for a user-- has been inserted.

Claim 9, line 8, after the word "user;" --and-- has been deleted.

Claim 9, line 11, after the word "joint" --; and enabling the processor-based system to communicate the cost and/or the cross-sectional area of the weld joint for a user-- has been inserted.

Claim 16, line 7, after the word "user;" --and-- has been deleted.

Claim 16, line 10, after the word "user" --; and programming instructions operable to direct the processor-based device to communicate the cost and/or the volume of the specific weld joint for a user--has been inserted.

Claim 21, line 7, after the word "data;" --and-- has been deleted.

Claim 21, line 10, after the word "weld" --; and enabling the processor-based device to communicate the energy input and/or the volume of the specific weld joint for a user-- has been inserted.

Claim 26, line 8, after the word "joint;" -and-- has been deleted.

Claim 26, line 10, after the word "joint" --; and communicating the cost and/or cross-sectional area of a weld joint for a user-- has been inserted.

Claim 32, line 5, after the word "user" --and-- has been deleted.

Claim 32, line 9, after the word "user" --; and providing the processor-based device with means for communicating the cross-sectional area of the weld joint and/or the amount of welding material deposited during the welding operation for a user-- has been inserted.

Claim 38, line 12 after the word "process;" --and-- has been deleted.

Claim 38, line 16 after the word "process" --; and receiving the total potential decrease in duration for performing the manufacturing process from the processor-based system-- has been inserted.

Claim 42, line 9, after the word "process" --, and the programming instructions enable a user to evaluate the potential decreases-- has been inserted.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: claims 1-9, 11-17, 19-26, 28-35, 37-40 and 42 are considered allowable since none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims.

Claim 1 describes a method for evaluating a welding process. The method receives dimensional data from a user regarding a weld joint and establishes the cross sectional area of the weld joint. A comparison between using each of a plurality of welding processes based on the cross sectional area of the weld joint is produced and presented to a user.

Barton et al (US Patent #6,636,776, referred to herein as Barton) discloses a method for managing welding procedures. The system calculates the cost of using a first welding procedure and a second welding procedure. However, Barton does not teach receiving dimensional data from a user regarding a weld joint and establishing the cross sectional area of the weld joint and comparing between using each of a plurality of welding processes based on the cross sectional area of the weld joint.

Claim 9 describes a method for establishing the cost associated with a weld joint. The method receives dimensional data from a user and establishes the cross sectional area of the

weld joint. Based on the cross sectional area of the weld joint, the cost of welding electrode material used in the welding process is established and communicated to the user.

Barton discloses a method for managing welding procedures. The system calculates the cost of using a first welding procedure and a second welding procedure. However, Barton does not disclose receiving dimensional data from a user and establishing the cross sectional area of the weld joint to establish the cost of welding electrode material used in the welding process.

Claim 16 discloses a program stored in a computer readable medium comprising instructions to receive dimensional data from a user regarding a weld joint. Based on the dimensional data received, the volume of the weld joint is established and the cost of welding the joint based on the volume is established.

Barton discloses a method for managing welding procedures. The system calculates the cost of using a first welding procedure and a second welding procedure. However, Barton does not disclose receiving dimensional data from a user regarding a weld joint and establishing the volume of the weld joint based on the received data or establishing the cost of welding the joint based on the volume.

Claim 21 discloses a method for analyzing a welding process. Welding data and dimensional data are requested for a user and the volume of the welding joint is established based on the received data. The energy input into the welding joint is established based on the data received from the user and the volume established.

Barton discloses a method for managing welding procedures. The system calculates the cost of using a first welding procedure and a second welding procedure. However, Barton does not disclose receiving welding data and dimensional data for a user and establishing the volume of the welding joint or establishing the energy input into the welding joint based on the data received from the user and the volume established.

Claim 26 discloses a method for establishing a cross sectional area of a weld joint. A user inputs a weld joint type and dimensional data. An image is provided of the selected weld joint type having an identifier corresponding to a dimension of the weld joint. The cost of welding electrode material used to weld the weld joint is established based on the dimensional data input by the user.

Barton discloses a method for managing welding procedures. The system calculates the cost of using a first welding procedure and a second welding procedure. However, Barton does

not disclose receiving user inputs regarding a weld joint type and dimensional data, providing an image of the selected weld joint type having an identifier corresponding to a dimension of the weld joint or establishing the cost of welding electrode material used to weld the weld joint based on the dimensional data input by the user.

Claim 32 discloses a method of establishing the amount of welding material deposited during a welding process. A user is requested to input electrode data, shield gas data and dimensional data for a weld joint. The cross sectional area of the weld joint is established and the amount of welding material deposited during the welding operation is established based on the data input by the user.

Barton discloses a method for managing welding procedures. The system calculates the cost of using a first welding procedure and a second welding procedure. However, Barton does not disclose requesting a user to input electrode data, shield gas data and dimensional data for a weld joint, establishing the cross sectional area of the weld joint and establishing the amount of welding material deposited during the welding operation based on the data input by the user.

Claim 38 discloses a method for quantifying potential improvements to a manufacturing process. The duration of

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performing a first cycle for performing a welding operation using a first welding process and a second cycle duration for welding a weld joint using a second welding process is provided. A potential decrease in performing the manufacturing process is established based on reducing the duration for performing a plurality of activities associated with the manufacturing process.

Barton discloses a method for managing welding procedures. The system calculates the cost of using a first welding procedure and a second welding procedure.

Vaidja et al. (US Patent #6,051,805, referred to herein as Vaidja) discloses a performance arc time measurement apparatus. The arc time for a welding process is measured by sensors and duty cycle performance calculated.

However, the combination of Barton and Vaidja do not disclose providing the duration of performing a first cycle for performing a welding operation using a first welding process and a second cycle duration for welding a weld joint using a second welding process and establishing a potential decrease in performing the manufacturing process based on reducing the duration for performing a plurality of activities associated with the manufacturing process.

Claim 42 discloses a computer program stored on a computer readable medium to develop a map of activities associated with a manufacturing process. The duration of performing a first cycle for performing a welding operation using a first welding process and a second cycle duration for welding a weld joint using a second welding process is provided. A user inputs potential decreases in the duration of performing activities associated with the manufacturing process including pre-weld activities and post-weld activities.

Barton discloses a method for managing welding procedures. The system calculates the cost of using a first welding procedure and a second welding procedure. However, Barton does not disclose providing the duration of performing a first cycle for performing a welding operation using a first welding process and a second cycle duration for welding a weld joint using a second welding process and allowing a user to input potential decreases in the duration of performing activities associated with the manufacturing process including pre-weld activities and post-weld activities.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rongo US Patent #6,292,715

Schneebeli et al US Patent #5,233,150

4. Claims 1-9, 11-17, 19-26, 28-35, 37-40 and 42 are allowed.

Correspondence Information

5. Any inquires concerning this communication or earlier communications from the examiner should be directed to Omar F. Fernández Rivas, who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at (571) 272-2589 or email omar.fernandezrivas@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (571) 273-8300.

If attempts to reach the examiner are unsuccessful the Examiner's Supervisor, David Vincent, may be reached at (571) 272-3080.

Hand-delivered responses should be delivered to the Receptionist[®] @ (Customer Service Window Randolph Building 401 Dulany Street

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Alexandria, VA 22313), located on the first floor of the south side of the Randolph Building.

Omar F. Fernández Rivas
Patent Examiner
Artificial Intelligence Art Unit 2129
United States Department of Commerce
Patent & Trademark Office

Monday, November 20, 2006



DAVID VINCENT
SUPERVISORY PATENT EXAMINER